

**Notice of Allowability**

Application No.

09/918,981

Examiner

Victor J. Taylor

Applicant(s)

MARTINEZ ET AL.

Art Unit

2863

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 29 July 2004.
2. ☒ The allowed claim(s) is/are 48-59.
3. ☒ The drawings filed on 29 July 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets" ) must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948 ) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings were received on 29 July 2004. These drawings are approved.

### ***Response to Arguments***

2. Applicant's amendments and arguments filed 29 July 2004 with respect to the correction to the drawings and the correction to the specification and the correction to the abstract of record have been fully considered and are persuasive. The objection to the drawings and the specification and the abstract of 12 March 2004 is moot and has been withdrawn.

3. Applicant's amendments and arguments filed 29 July 2004 with respect to the canceling of claims 1-47 of record have been fully considered and are persuasive. The objection to the claims of 12 March 2004 is moot and has been withdrawn.

4. Applicant's arguments filed 29 July 2004 with respect to the amendments to the claims and the canceling of claims 1-47 and the arguments of record have been fully considered and are persuasive. The 102 (b) rejection of 12 March 2004 has been withdrawn.

### ***Allowable Subject Matter***

5. Claims 48-59 are allowed. The applicant with draws claims 1-47.
6. The following is an examiner's statement of reasons for allowance:

The amendments of record presented with the arguments of record on 29 July 2004 by the applicant in the instant application convinces the examiner that the application is allowable over the cited art of record.

Wherein, the method in claim 48 for migrating seismic data with method steps of "selecting an image data point" ... [and] with the steps of "generating a model of seismic velocity with respect to time, the model including substantially horizon layers each having a selected velocity and a selected thickness" ... [and] with the steps of "determining a two way travel time of seismic energy from at least one seismic energy source position to at least one seismic receiver position wherein the seismic energy is reflected from the image point" ... and/or in combination with the steps of "estimating a ray path from at least one seismic source position to the image point and from the image point to the at least one seismic receiver position, the ray path based on the source position, the receiver position and the velocity model" with the method steps of "determining the two way travel time of seismic energy through formations to the image point is not found in the cited art of record.

It is these limitations expressed in each of these claims and not found, taught, or suggested in the prior art of record, that makes these claims allowable over the prior art.

Claims 49-59 which are dependent on the allowed independent claim 1 are allowed at least for the reasons cited above.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

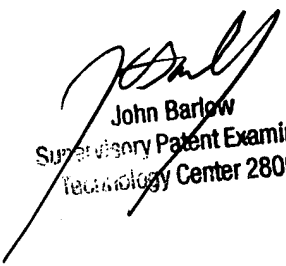
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor J. Taylor whose telephone number is 571-272-2281. The examiner can normally be reached on 8:00 to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on 571-272-2863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center at 866-217-9197 (toll-free).

VJT

  
17 August 2004.

  
John Barlow  
Supervisory Patent Examiner  
Technology Center 2800